InsightGraph

Case Study: For Funders & Government

Tracking Research Funding Program Outcomes with InsightGraph

Tracking research funding program outcomes with advanced analyses of integrated research metadata

Background

Our customer, a leading research funding body, is dedicated to advancing scientific research and innovation across various disciplines. With a mission to drive societal progress through strategic investments in research, this organization allocates substantial grant funds to researchers. Previously, the organization measured the impact of its research grants portfolio through traditional research metrics such as the number of funded research publications and their citation counts as well as the h-index of awardees. However, the rapidly evolving landscape of science, technology and innovation has inspired the research funding body to recognize the need to assess the broader, long-term outcomes of its investments, including their practical applications and societal benefits.
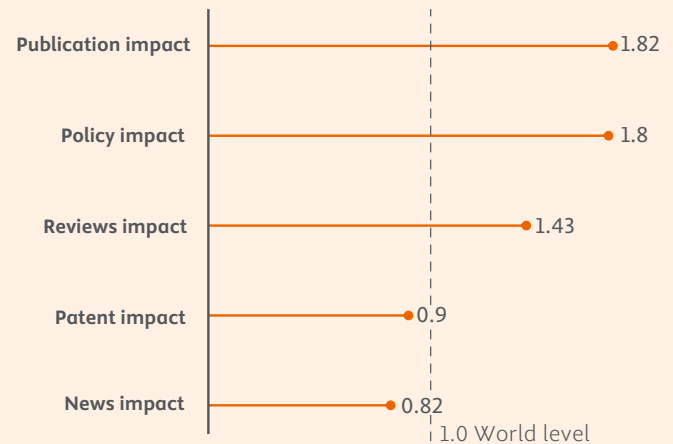
Challenge

While traditional research metrics provided our customer with insights into the scientific influence of funded research, it often fell short in capturing the broader impacts that extend beyond the research community. This research funding body faced several challenges:

1. **Limited Scope:** Traditional research metrics did not account for the translational outcomes and impact of research, such as contributions to technology, innovation, policy, and societal well-being.
2. **Data Integration:** The funder needed a comprehensive solution that could integrate diverse data sources, including research publications, patents, policy documents, and business activities.
3. **Strategic Decision-Making:** Without a holistic view of research impact, the organization struggled to make data-driven decisions on future grant allocations and prioritize research areas with high potential for both research and societal impact.

Solution: InsightGraph

To address these challenges, the research funding body implemented InsightGraph, a holistic knowledge graph designed to track and analyze the outcomes of the client's research grants portfolio comprehensively. InsightGraph offered several key features that aligned with the organization's needs:

1. **Comprehensive Dataset:** InsightGraph combined information from research publications, patents, policy documents, and other global research outputs, providing a holistic view of research impact.

2. **Research Impact Tracking:** InsightGraph enabled the research funding body to understand the impact of their research projects not only by using traditional research metrics through research publications and citations but also by assessing additional citation metrics for a nuanced perspective on knowledge transfer. Additionally, the research funding body could analyze the interdisciplinarity and collaborations enabled among researchers through this funding.

3. **Translational Impact Tracking:** InsightGraph connected funded research outputs to patents, policy citations, and industry collaborations, allowing the research funding body to track the broader outcomes of funded research.

4. **Business Activity Integration:** InsightGraph integrated data from funded researchers with data on business activities, such as spinouts, start-ups, and venture capital investments, highlighting the commercialization potential of funded researchers.

Description: Above figure shows the impact of the funder's grant-supported publications, as measured through:
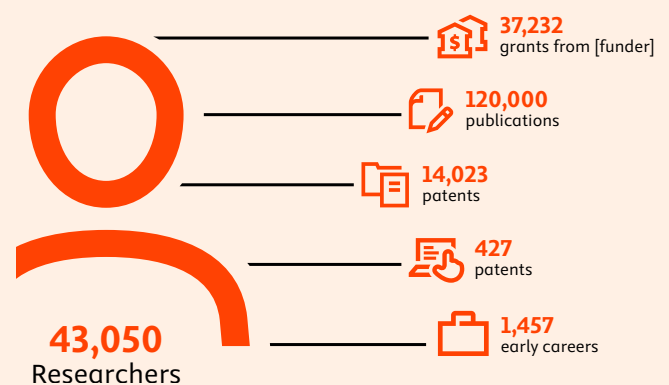- Citations by other scientific publications
- Citations by policy-relevant documents
- Citations by reviews
- Citations by patents
- Mentions in news

Each of these measures was normalized for meaningful comparison

Outcomes

By leveraging InsightGraph, this research funding body achieved key outcomes:

1. **Enhanced Research Insights:** Gained a clear view of how funded research advanced knowledge, fostered collaboration, and influenced the global research landscape. Additional citation and collaboration metrics provided deeper insight into research impact.

2. **Broader Impact Assessment:** Tracked translational impacts, including advancements in patents, policy, and industry. This helped assess tangible societal benefits like sustainable solutions, new technologies, and policy shifts.

3. **Data-Driven Decision-Making:** Integrated data enabled informed, strategic grant allocations, prioritizing research areas with strong potential for both academic and societal impact.

4. **Commercialization Potential:** Identified research areas with strong commercialization prospects by analyzing business activities linked to funded researchers, supporting innovation and industry growth.

Description: This figure shows the outcomes of funded researchers, to enable insights into impacts that can't be linked to funding directly. For example, while few data sources explicitly link a grant to a startup, data can link researchers funded by grants to startups, establishing an indirect link between the two.

Conclusion

InsightGraph proved to be an invaluable tool for the research funding body, enabling it to comprehensively track and analyze the outcomes of its research funding program. By integrating traditional research metrics with broader translational impact measures, InsightGraph provided a holistic view of research impact. This empowered our customer to make strategic, data-driven decisions that maximized both research and societal benefits. As a result, the research funding body could fulfill its mission of driving innovation and societal progress more effectively, ensuring that its investments in research yielded meaningful and lasting outcomes.

For more information on how InsightGraph can help track research funding program outcomes, contact us today.

InsightGraph

Funders, government entities, and academic institutions struggle with fragmented data, complex regulations, and cost constraints. InsightGraph integrates multiple data sources, offering a comprehensive overview of your research and innovation ecosystem.

For more information about InsightGraph, visit elsevier.com/products/insightgraph